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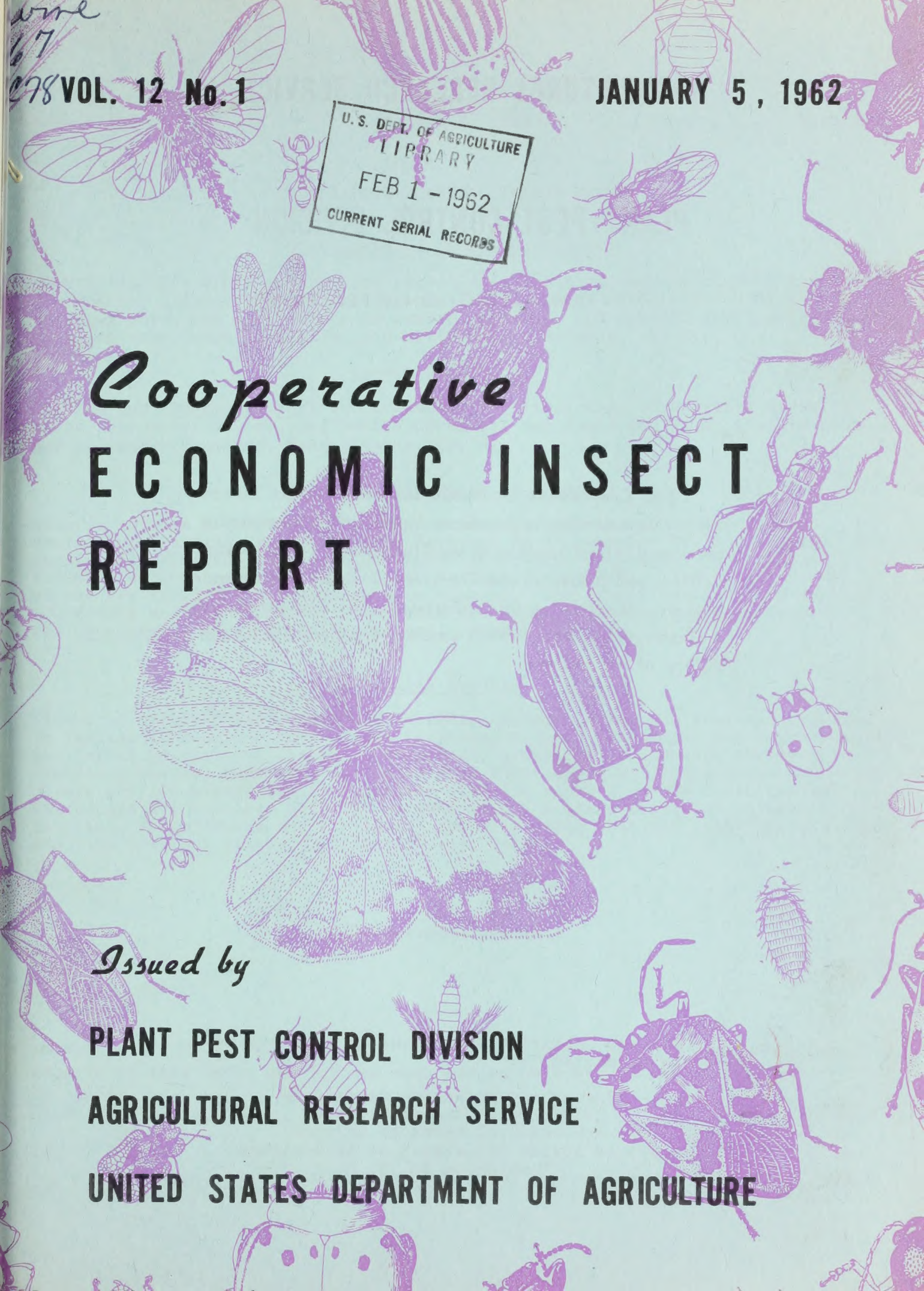

Cooperative
ECONOMIC INSECT REPORT

Issued by

PLANT PEST CONTROL DIVISION
AGRICULTURAL RESEARCH SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

SURVEY AND DETECTION OPERATIONS

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearing house and does not assume responsibility for accuracy of the material.

Reports and inquiries pertaining to this release should be mailed to:

Survey and Detection Operations
Plant Pest Control Division
Agricultural Research Service
United States Department of Agriculture
Washington 25, D. C.

80003

Volume 12 January 5, 1962 Number 1

COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

SPOTTED ALFALFA APHID populations expected to build up rapidly in Dona Ana County, New Mexico, alfalfa if warm weather continues. GREEN PEACH APHID medium to heavy on sugar beets and other crops in central Arizona, and CABBAGE APHID infestations heavy on cole crops in central and southwestern Arizona. (p. 3).

Insect Detection

A stink bug (Edessa bifida) was collected for first time in Virginia at White Stone, Lancaster County; and HOLLYHOCK WEEVIL was found for first time in Lebanon and Allegheny Counties, Pennsylvania. (p. 4).

Miscellaneous Notes of Interest

Several species of APHIDS were found on strawberries in Prince Georges and Montgomery Counties, Maryland, from November 22 to December 28, and several species of MILLIPEDS that were collected at several localities in Virginia recently were determined by Dr. R. H. Hoffman. (pp. 4-5). The generic name of the New World SCREW-WORMS has been changed. The proper combinations for the SCREW-WORM and the SECONDARY SCREW-WORM are Cochliomyia hominivorax (Coquerel) and Cochliomyia macellaria (Fabricius), respectively. (p. 5).

Special Reports

Status of the EUROPEAN CORN BORER in 1961. Spread during the year was reported to include 15 counties in 4 states (Alabama, Georgia, Tennessee and North Dakota). The larval populations, based on comparable districts or counties surveyed in reporting states, generally decreased from those of 1960. The average number of borers per 100 plants was 70, compared with 133 in 1960 in the North Central States, and 171 compared with 164 in 1960 in the Eastern States of Delaware, Maryland, Pennsylvania and Virginia. The only state that had higher populations than the previous year was Delaware. (pp. 6-14).

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Reports in this issue are for the week ending December 29 unless otherwise indicated.

WEATHER BUREAU 30-DAY OUTLOOK

JANUARY 1962

The Weather Bureau's 30-day outlook for January indicates that temperatures will average below seasonal normals over the eastern two-thirds of the Nation except for near to above normal from the Appalachians eastward. Over the western third of the country, from near to slightly above normal temperatures are anticipated over central and northern portions, but below normal over southern portions. Sometime during the month, however, a radical change in this pattern is anticipated wherein the Far West will revert to unseasonably cold conditions with a compensating warming in the East. It is not presently possible to determine precisely when this change will occur. Precipitation is expected to exceed normal over the Northeast, the middle Atlantic States and also in the middle Mississippi Valley. Much of this will fall as snow, except in Atlantic coast areas where rain will predominate. Subnormal precipitation is indicated over the northern and central Intermountain area and western Great Plains. In other unspecified areas near normal amounts are in prospect.

Weather forecast given here is based on the official 30-day "Resume and Outlook", published twice a month by the Weather Bureau. You can subscribe through Superintendent of Documents, Washington 25, D. C. Price $4.80 a year, $2.40 a half year.

WEATHER OF THE WEEK ENDING JANUARY 1

The weather continued unseasonably mild in the Far West and extreme Northeast and extremely cold in much of the midcontinent area for the second consecutive week. Precipitation in significant amounts was mostly limited to the north Pacific coast, the extreme Northeast, and parts of the Southeast. Much of the Far Southwest and lower Great Plains received no precipitation at all.

Most of the week was cold in the midcontinent area, and subzero minima extended to St. Louis, Missouri, and the Ohio Valley on Thursday. By the weekend, temperatures fell to subzero levels at scattered points in the Northeast. Freezing extended to the Louisiana coast on about 3 days, and occurred in most of Georgia on 4 to 7 days. Frost and freeze extended to the Florida Everglades on the 26th and to the interior sections along the southeastern coast of Florida cn the 30th. Tender vegetable crops in southern Florida were damaged.

Snow flurries occurred in northern areas east of the Rockies on several days, but most precipitation east of the Rockies was produced by a frontal passage on the 27th and 28th and by an Atlantic coastal storm at the end of the period.

Most of the week's precipitation in the Northeast fell on the 28th and was in the form of snow, except for rain in the Hudson Valley and on Long Island, and in southeastern New England.

The coastal storm at the end of the week dumped up to 9 inches of snow in northern Georgia and lesser amounts over parts of the Carolinas, Virginia and Maryland, and up to 6 inches in extreme southern New England.

In the Far West the mountain snowpack decreased slightly, while the cover from the northeastern Great Plains to the Atlantic coast generally remained unchanged, with depths ranging up to more than a foot in the upper Mississippi Valley, the Great Lakes region, and Northeast. Twenty-six inches of new snow, falling mostly from the 29th to 31st, was reported by Buffalo, New York, and the cover there now is 22 inches. (Summary supplied by U. S. Weather Bureau).

CEREAL AND FORAGE INSECTS

CHINCH BUG (Blissus leucopterus) - NEBRASKA - Annual adult hibernation survey conducted in 29 counties yielded only one economic sample. This is the lighest population on record for the State. (Bell).

APHIDS - ARKANSAS - Oat fields checked in Jefferson County were negative for any species. (Ark. Ins. Sur.)

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - NEW MEXICO - Adults and nymphs noted in alfalfa in Dona Ana County; populations found in most fields, but generally very light. (N. M. Coop. Rpt.).

PEA APHID (Macrosiphum pisi) - NEW MEXICO - Light to moderate infestations in most fields checked in Dona Ana County; only occasional winged adult seen. (N. M. Coop. Rpt.).

SPOTTED ALFALFA APHID (Therioaphis maculata) - NEW MEXICO - Adult populations generally light on alfalfa in Dona Ana County. Young very abundant on new growth in several fields; rapid buildup expected if warm weather continues. (N. M. Coop. Rpt.).

A THRIPS (Frankliniella occidentalis) - ARIZONA - Medium infestations present on some central and southwestern alfalfa. (Ariz. Coop. Sur.).

A SPOTTED CUCUMBER BEETLE (Diabrotica undecimpunctata tenella) - NEW MEXICO - Adults active in alfalfa fields in Dona Ana County. (N. M. Coop. Rpt.).

FRUIT INSECTS

A CERAMBYCID (Snaphoeta quexi) - CALIFORNIA - Heavy infestation in semiabandoned cherry orchard near Vacaville, Solano County. (Cal. Coop. Rpt.).

TRUCK CROP INSECTS

GREEN PEACH APHID (Myzus persicae) - ARIZONA - Medium to heavy infestations continue on sugar beets and other crops in central area. (Ariz. Coop. Sur.).

CABBAGE APHID (Brevicoryne brassicae) - ARIZONA - Heavy infestations continue on cole crops in central and southwestern areas. (Ariz. Coop. Sur.).

Aphids on Strawberries - MARYLAND - Collections from two localities in Prince Georges and Montgomery Counties, November 22 to December 28, have disclosed a surprising number of species and degree of activity. Species and stages collected: POTATO APHID (Macrosiphum euphorbiae) - oviparous females and eggs; YELLOW ROSE APHID (Myzus porosus) - oviparous and viviparous females; MELON APHID (Aphis gossypii) - viviparous females; STRAWBERRY ROOT APHID (Aphis forbesi) - apterous females (2 only); and Pentatrichopus sp. - apterous and alate viviparous females. Only the last named was collected after November 30, but it has been quite active. At Fairland, Montgomery County, on December 28, with snow covering the plants, apterous and alate viviparous females and numerous nymphs (averaged 8 aphids per trifoliate leaf) were present. Determinations confirmed by L. M. Russell. (U. Md., Ent. Dept.).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

A WEBWORM (Tetralopha asperatella) - VIRGINIA - Light infestation on pin oak at a home in Blacksburg, Montgomery County. Determination by H. W. Capps. (Tarpley, Oct. 2).

FALL CANKERWORM (Alsophila pometaria) - PENNSYLVANIA - Numerous males flying on Cove Mountain, Perry County, in wooded area on December 3. (Sleesman,Balsbaugh).

CHRYSANTHEMUM LEAF MINER (Phytomyza atricornis) - PENNSYLVANIA - Quite abundant in greenhouse on chrysanthemums at Blair, Altoona County. (Udine).

HOLLYHOCK WEEVIL (Apion longirostre) - PENNSYLVANIA - Appeared for first time on hollyhock in Lebanon and Allegheny Counties on June 2 and July 19, respectively. Determined by F. B. Negley. (Negley, Yackley, Balsbaugh).

Aphids on Weeping Willow - VIRGINIA - Heavy infestation in Leesburg, Loudoun County, of Pterocomma smithiae, P. salicis and Lachnus salignus. Determined by L. M. Russell. (Rowell, Brown, Oct. 11).

INSECTS AFFECTING MAN AND ANIMALS

SHEEP SCAB MITE (Psoroptes ovis) - VIRGINIA - Present on 25 sheep out of 444 inspected in State during October. (Va. Livestock Health Bull., 45(12)).

BENEFICIAL INSECTS

NABIDS (Nabis spp.) - NEW MEXICO - Active in alfalfa fields in Dona Ana County where aphids are present. (N. M. Coop. Rpt.).

LADY BEETLES - NEW MEXICO - Active in Dona Ana County alfalfa fields where aphids are present. (N. M. Coop. Rpt.).

MISCELLANEOUS INSECTS

FACE FLY (Musca autumnalis) - PENNSYLVANIA - Swarmed and clustered in homes in Ellsworth, Washington County, on November 27. (Balsbaugh).

MOTH FLIES - PENNSYLVANIA - Abundant in bathroom in Carlisle, Cumberland County. (Udine, Dec. 20).

GERMAN COCKROACH (Blattella germanica) - NEBRASKA - Infested homes in Lancaster County locally. (Bergman).

A STINK BUG (Edessa bifida) - VIRGINIA - Collected for first time in State in home and garage at White Stone, Lancaster County. Determined by R. C. Froeschner. (Tarpley, McSwain, Oct. 11).

BEAN WEEVIL (Acanthoscelides obtectus) - PENNSYLVANIA - Abundant in homes near lights in Indiana County. (Udine, Dec. 17).

CLOVER MITE (Bryobia praetiosa) - PENNSYLVANIA - Invaded homes on December 4 at Harrisburg, Dauphin County. (Balsbaugh).

MILLIPEDS - VIRGINIA - Several species determined by Dr. R. H. Hoffman are recorded in the State. Pseudopolydesmus serratus was collected at Mountain Lake, Giles County, on August 30. Apheloria corrugata was collected in basement of home in Roanoke, Roanoke County, on May 17. Oxidus gracilis reported from Richmond, Henrico County, as somewhat more severe than usual and migrating into home during 3 weeks previous to August 25. Collected also at Stuart, Patrick County, on August 2 and September 12. This species was reported as very abundant at a home in Rocky Mount, Franklin County, on June 12. Numerous specimens have been entering homes in Boydton, Mecklenburg County, on September 20. Brachyiulus pusillus invaded homes in Saltville, Smyth County, on November 4; Staunton, Augusta County, on December 6; and Leesburg, Loudoun County, on December 5. (Matheny, Morse, Powell, Rowell, Tarpley, Tucker).

CORRECTION

CEIR 11(39):918 - JUNIPER WEBWORM (Dichomeris marginella) - VIRGINIA - should read A WEBWORM (Herculia intermedialis). Determined by H. W. Capps.

LIGHT TRAP COLLECTIONS

	Perid. saucia	Prod. ornith.	Spod. exigua	Trich. ni	Heliothis zea
ARIZONA					
Mesa 12/21-27	1	2	12	1	1

THE NAMES FOR THE SCREW-WORMS

The generic name of the New World screw-worms and screw-worm flies has been changed several times in this century, for zoological or nomenclatural reasons, from Chrysomya (now accepted as restricted to the Old World screw-worms) to Cochliomyia to Callitroga. The last, a name originally cited only in synonymy, has been accepted in North America for the last decade, but used very little elsewhere. It is now clear, from the new International Code of Zoological Nomenclature (published November 1961), which reflects a decision of the XV International Congress of Zoology (London 1958), that Callitroga is nomenclaturally unavailable. Accordingly, the proper combinations for the screw-worm and the secondary screw-worm are Cochliomyia hominivorax (Coquerel) and Cochliomyia macellaria (Fabricius), respectively. (Curtis W. Sabrosky, ENT, ARS, USDA).

STATUS OF THE EUROPEAN CORN BORER IN 1961

Survey Data Provided by State Agricultural Agencies,
Compiled and Summarized by Survey and Detection Operations,
Plant Pest Control Division, Agricultural Research Service,
United States Department of Agriculture

Cooperating agricultural agencies in 17 states reported on surveys conducted in their states to determine the abundance and distribution of European corn borer (Ostrinia nubilalis (Hubner)) in 1961. All survey data, summaries or records of field observations were submitted to Survey and Detection Operations, Plant Pest Control Division office in Washington, D. C., for final processing. After processing, the material was reviewed by personnel of the Entomology Research Division, ARS. This is a compilation of the information submitted by the State agencies.

Distribution

Spread of the European corn borer during 1961 was somewhat limited. A total of 15 counties was reported from the states of Alabama, Georgia, Tennessee and North Dakota. The 15 new counties reported during 1961 was an increase from the 6 new counties reported during 1960 and the 13 in 1959, but considerably less than the 58 new counties and parishes reported in 1958. Special surveys were conducted during the fall of 1961 in New Mexico and Wyoming, with negative results. Counties reported as infested for the first time in 1961 are as follows:

Alabama

Chambers
Coosa
Macon

Georgia

Butts
Catoosa
Cherokee
Cobb
Paulding
Pickens
Putnam
Troup

North Dakota

Billings
Hettinger

Tennessee

Fayette
Hardeman

Abundance

The 1961 European corn borer survey was conducted during the late summer and fall of the year. The survey is designed to measure the fall population of European corn borer larvae. The participating states were encouraged to time the surveys to include a high percentage of mature larvae whenever possible. In all cases, except for some minor differences in compiling data, the accepted survey methods were used.

The survey was continued on a district basis whenever possible in 1961. A district is usually a group of counties within a state, in most cases being based on the Agricultural Marketing Service Crop Reporting Districts. Only in the states of Delaware, Maryland, Michigan, Ohio and Virginia were the aforementioned AMS Crop Reporting Districts not used. In Delaware, the entire State was classed as one district, and the surveyed counties in Michigan were classed as one district. State-derived districts were used in Maryland, Ohio and Virginia. The population levels for 1960 and 1961 are shown in Table 1 and Table 2, with the district or county counts being reported in the latter table.

Population levels of the European corn borer were generally lower than in 1960 in the North Central States. Decreases were most notable in Illinois, Indiana, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota and Wisconsin; but, the 1961 counts were about the same as those in 1960 in Iowa. In the latter State, a slight shift in the population from the northwest, which was the highest in 1960, occurred in 1961. The highest counts in Iowa were present in the central and west central districts (IV, V, VII, VIII) where borers per 100 plants averaged 144, 143, 199 and 188, respectively. The largest populations recorded in the North Central States continued to be present in District II of North Dakota (Cass and Richland Counties) where larval counts averaged 262 per 100 plants. However, the 1961 counts in District II of North Dakota were considerably lower than the 474 recorded in 1960.

In the Eastern States, populations were somewhat lower than those encountered in 1960 in Maryland, Pennsylvania and Virginia, but higher in Delaware. The State average of 376 borers per 100 plants found in Delaware was the second highest population recorded in that State since 1936. The 394 borers per 100 plants which occurred in 1959 still stands as the highest recorded population in Delaware. The 1961 increase in populations in Delaware was mainly in the central and northern parts of the State (Kent and New Castle Counties) where the population increased 35.5 and 54 percent, respectively, over the 1960 fall population. In Pennsylvania, an increase was recorded in the southeastern district where counts were 161 per 100 plants compared with 136 in 1960. The highest counts in Maryland were again on the Eastern Shore, but yet somewhat lower, being 186 in 1961 compared with 209 in 1960.

The survey in Arkansas indicated a decrease in populations, and the results of the past season's inspection in Payne County, Oklahoma, indicated that this was the lighest infestation observed in that area of the State in several years.

For all states reporting, based on comparable districts or counties surveyed, the average number of borers per 100 plants decreased from 142 in 1960 to 97 in 1961. The average for the North Central States was 70 in 1961 compared with 133 in 1960, and the average for the Eastern States (Delaware, Maryland, Pennsylvania, Virginia) was 171 in 1961 compared with 164 in 1960. The population counts for the States of Arkansas and Michigan were not included in the United States average since they were not comparable with the 1960 survey.

A summary of the 1959 and 1960 surveys is shown on Table 1 by states. State summaries are shown on Table 2. Accompanying maps show districts surveyed, approximate population levels and counties infested for the first time in 1961.

Table 1. Summary by States of European Corn Borer Abundance in Corn, Fall of 1961, Compared With Data for 1960

States	1960			1961			Comparable Districts or Counties Surveyed Both Years		
	No. of Districts Surveyed	Average No. of Borers Per 100 Plants	No. of Counties Surveyed	No. of Districts Surveyed	Average No. of Borers Per 100 Plants	No. of Counties Surveyed	Number	Borers Per 100 Plants 1960	Borers Per 100 Plants 1961
Eastern									
Delaware	1	262	3	1	376	3	1	262	376
Maryland	3	127	23	3	115	23	3	127	115
Pennsylvania	7	75	35	8	57	40	6	75	65
Virginia	2	191	8	2	129	8	2	191	129
Total	13		79	14		74			
Average 1/								164	171
North Central									
Illinois	7	103	37	7	57	37	7	103	57
Indiana	12	61	87	12	27	92	12	61	27
Iowa	12	124	99	12	100	99	12	124	100
Kansas	3	70	24	3	25	24	3	70	25
Minnesota	6	107	63	7	70	69	6	107	68
Missouri	8	61	46	8	38	41	8	61	38
Nebraska	8	119	69	7	56	72	7	135	56
North Dakota	2	372	4	1	262	2	1	474	262
Ohio	5	68	33	5	13	33	5	68	13
South Dakota	6	172	42	6	103	42	6	172	103
Wisconsin	9	93	58	9	22	58	9	93	22
Total	78		562	77		569			
Average 1/								133	70
United States									
Total	91		641	91		643			
Average 1/								142	97
States Surveyed But Not Included in U. S. Average									
Arkansas	4	63	19	4	27	19	3	59	32
Michigan	1	27	19	1	7	23			

1/ Weighted averages based on districts surveyed.

Table 2 - European Corn Borer Abundance in Corn, Fall of 1961, Compared With Data for 1960

State	Average Number of Borers Per 100 Plants	
	1960	1961
Arkansas (Ark. Ins. Sur.)		
Northwest	-	12
North Central	22	20
Northeast	58	44
East Central	97	32
Southeast	71	-
Average	63	27
Average comparable districts (3)	59	32
Delaware (Agr. Expt. Sta.)		
Kent	239	523
New Castle	132	205
Sussex	415	399
Average	262	376
Illinois (Natural History Survey, Ext. Ser.)		
Northwest	95	81
Northeast	61	70
West	173	59
Central	139	64
East	72	64
West-southwest	148	43
East-southeast	35	20
Average	103	57
Indiana (Ext. Ser., Expt. Sta.)		
North-northwest	64	60
North-northcentral	192	29
North-northeast	76	5
Northwest 1/	11	11
North Central	73	10
Northeast	125	10
Southwest 1/	12	6
Indiana (cont'd)		
South Central	11	20
Southeast	18	8
South-southwest	37	52
South-southcentral	56	41
South-southeast	59	72
Average	61	27
Iowa (State Dept. of Agr.; Ext. Ser.; Expt. Sta.; ENT, ARS, USDA)		
District I	235	66
District II	181	68
District III	112	78
District IV	165	144
District V	149	143
District VI	56	82
District VII	286	199
District VIII	143	188
District IX	44	62
District X	66	79
District XI	26	47
District XII	30	42
Average	124	100
Kansas (Ins. Sur.)		
Northeast	77	27
North Central	66	4
East Central	66	43
Average	70	25
Maryland (Agr. Ext. Ser., Ins. Sur.)		
Eastern Shore	209	186
Southern area	81	83
Western and Central areas	93	75
Average	127	115

1/ Areas not completely surveyed in 1960.

Table 2 - (Cont'd)

State	Average Number of Borers Per 100 Plants	
	1960	1961
Michigan (Ext. Ser.)		
Surveyed Counties	27	7
(Survey in 1960 conducted in 19 counties; survey in 1961 conducted in 19 counties)		
Minnesota (State Dept. of Agr.)		
West Central	173	112
Central	60	52
East Central	34	17
Southwest	280	115
South Central	65	66
Southeast	30	43
Northwest	-	86
Average	107	70
Average comparable districts (6)	107	68
Missouri (Ext. Ser., Ins. Sur.)		
District I	56	59
District II	54	37
District III	64	23
District IV	34	28
District V	21	45
District VI	79	32
District VII	28	18
District IX	154	69
Average	61	38
Nebraska (Agr. Expt. Sta., Ext. Ser., Ins. Sur.)		
North	71	47
Northeast	191	87
Northwest	3	-
Central	227	51
East	222	137

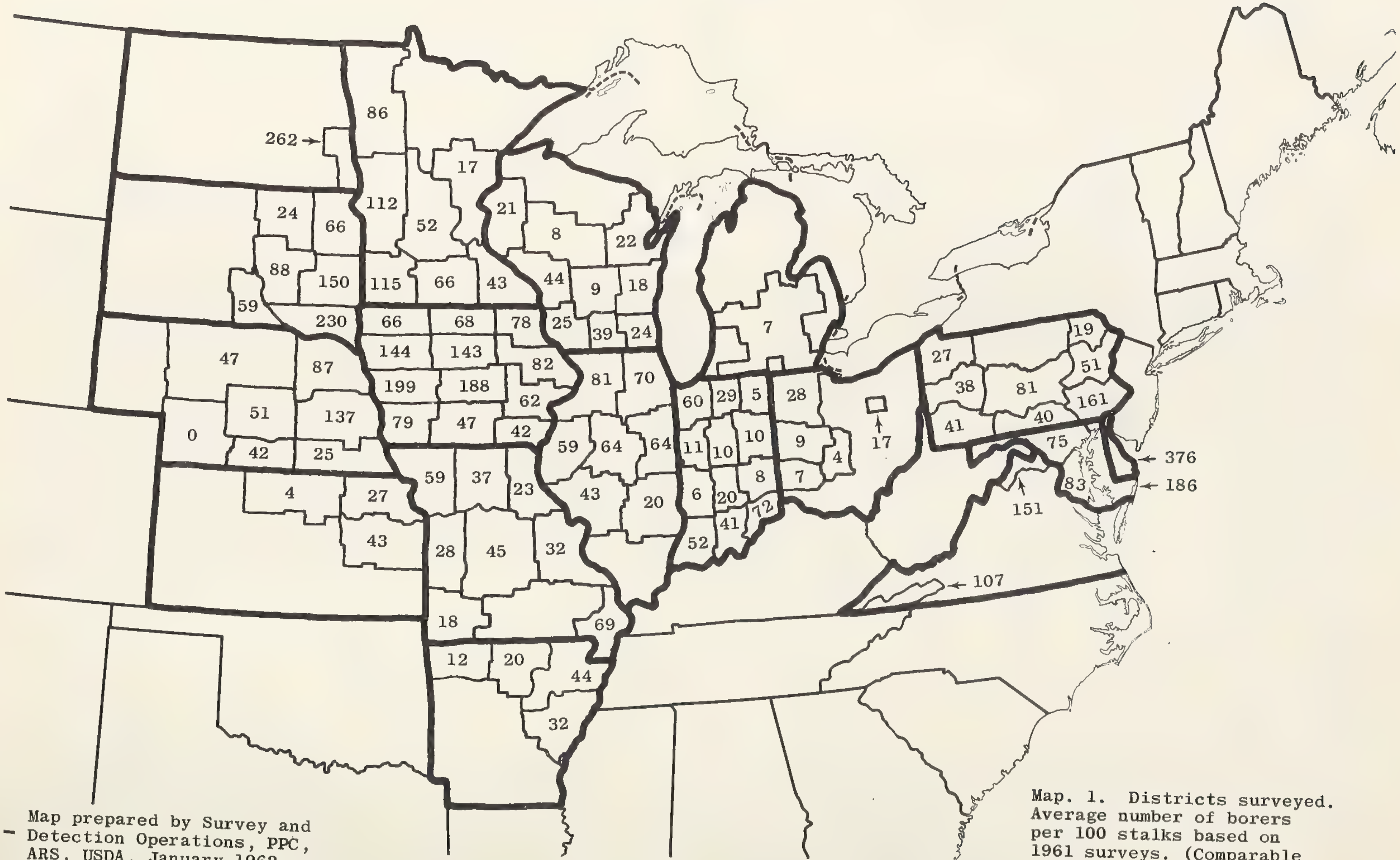
State	Average Number of Borers Per 100 Plants	
	1960	1961
Nebraska (cont'd)		
South	111	42
Southeast	106	25
Southwest	18	0
Average	119	56
Average comparable districts (7)	135	56
North Dakota (State Dept. of Agr.)		
District I	269	-
District II	474	262
Average	372	262
Average comparable districts (1)	474	262
Ohio (Expt. Sta.; Ext. Ser.; ARS, USDA)		
Northwest	85	28
West Central	83	9
Central	23	4
Southwest	68	7
Northeast	79	17
Average	68	13
Pennsylvania (State Dept. of Agr.)		
Northwest	24	27
West Central	36	38
Southwest	40	41
Central	125	81
South Central	89	40
Northeast	-	19
East Central 1/	74	51
Southeast	136	161
Average	75	57
Average comparable districts (6)	75	65

1/ District not comparable both years

Table 2 - (Cont'd)

State	Average Number of Borers Per 100 Plants		State	Average Number of Borers Per 100 Plants	
	1960	1961		1960	1961
South Dakota			Wisconsin		
(Agr. Expt. Sta., Ext. Ser.)			(State Dept. of Agr.)		
North Central	90	24	Northwest	58	21
Northeast	140	66	North Central	42	8
Central	140	88	West Central	120	44
East Central	261	150	Central	215	9
Southeast	220	230	Southwest	96	25
South Central	182	59	South Central	135	39
			Southeast	92	24
Average	172	103	East Central	42	18
			Northeast	38	22
Virginia			Average	93	22
(Ins. Sur.)					
Northern District	236	151			
Southwestern District	147	107			
Average	191	129			

EUROPEAN CORN BORER ABUNDANCE
FALL 1961

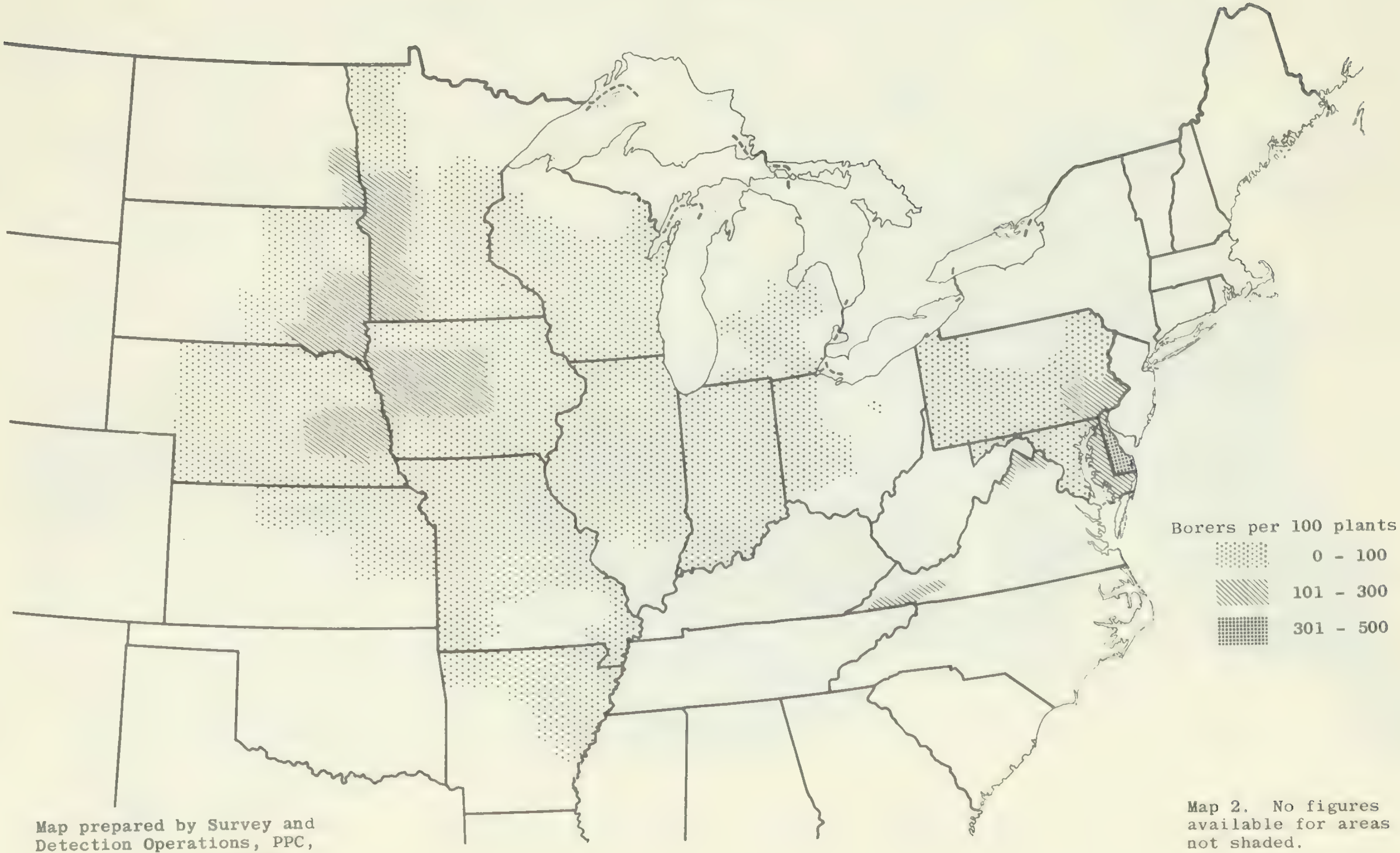


Map prepared by Survey and Detection Operations, PPC, ARS, USDA, January 1962

Map. 1. Districts surveyed. Average number of borers per 100 stalks based on 1961 surveys. (Comparable figures in Table 2).

EUROPEAN CORN BORER ABUNDANCE

FALL 1961



Map prepared by Survey and
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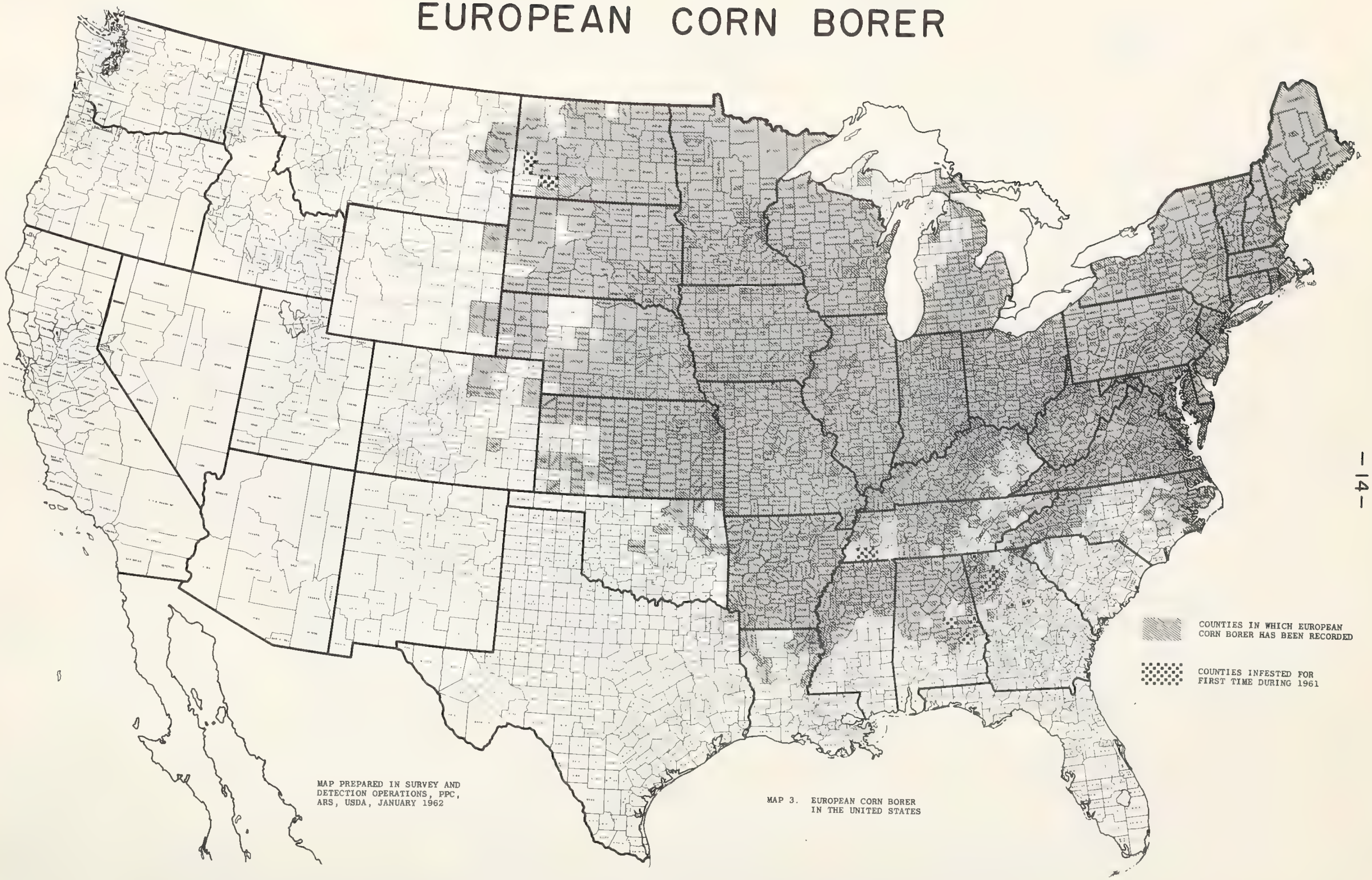
Map 2. No figures
available for areas
not shaded.

EUROPEAN CORN BORER



▨ COUNTIES IN WHICH EUROPEAN CORN BORER HAS BEEN RECORDED

▩ COUNTIES INFESTED FOR FIRST TIME DURING 1961

MAP PREPARED IN SURVEY AND DETECTION OPERATIONS, PPC, ARS, USDA, JANUARY 1962

MAP 3. EUROPEAN CORN BORER IN THE UNITED STATES

UNITED STATES DEPARTMENT OF AGRICULTURE

WASHINGTON 25, D. C.

Official Business

POSTAGE AND FEES PAI